

# GEN3™ Multi-Barrier Pipette Tips

## The Ultimate Self-Sealing Tip

### Multi-Barrier Technology

Introducing the ultimate filter barrier technology. The new Axygen® brand GEN3 multi-barrier filter pipette tips offer the ultimate in protection against cross contamination using tri-filter technology. These tips will prevent liquid or aerosol from passing through and will lock on contact assuring your valuable samples and research have not been compromised.

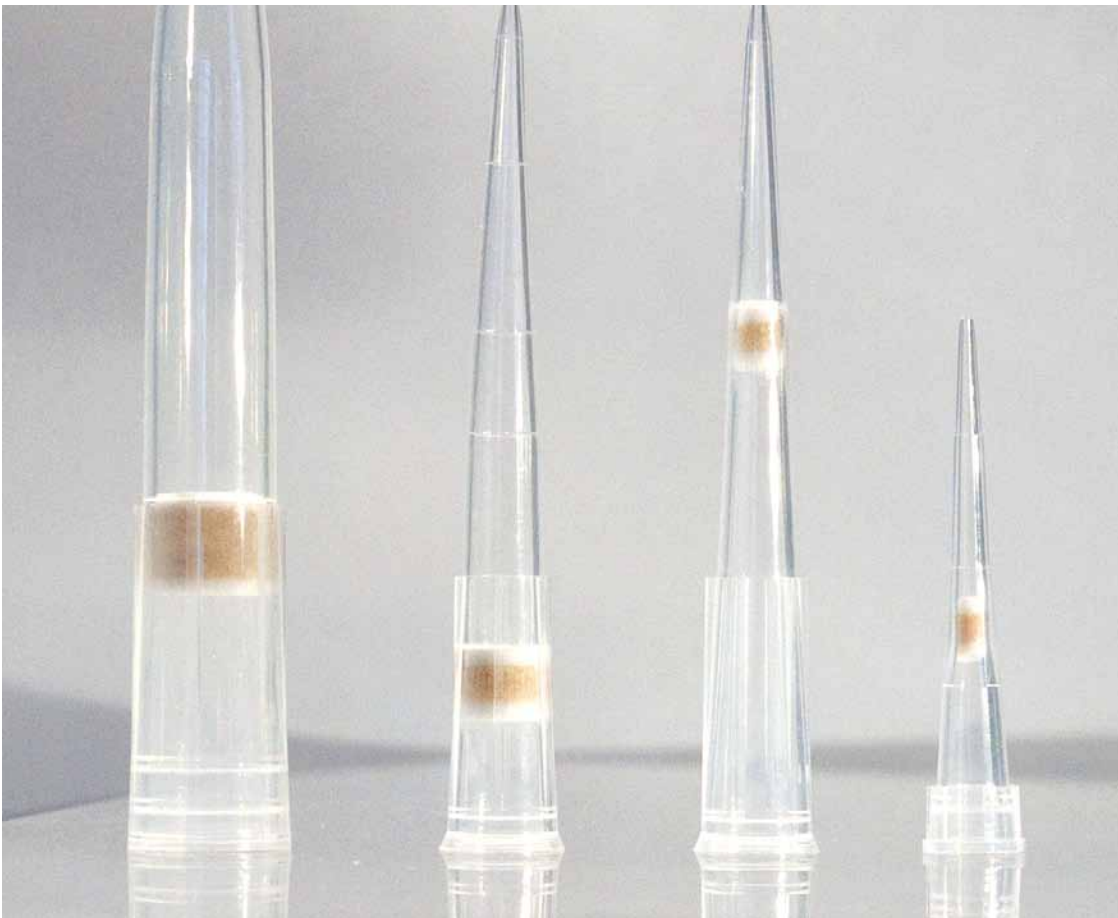
Unlike other self-sealing barrier tips that can possibly inhibit PCR, GEN3 tips effectively separate liquid from the self-sealing barrier using an additional protective layer of conventional polyethylene filter material.

In addition to the self-sealing properties, our GEN3 multi-barrier pipette tips feature our exclusive Maxymum Recovery® technology which reduces the amount of reagent or sample adhering to the pipette tip. This allows complete sample retrieval. Maxymum Recovery also reduces the risk of DNA denaturation.

Offered in racks and pre-sterilized via e-beam, tips are DNase-/RNase-free and nonpyrogenic.

### Features and Benefits

- ▶ Multi-barrier self-sealing filter prevents aerosol or liquid cross contamination
- ▶ Proprietary filter design prevents possible PCR inhibition
- ▶ Maxymum Recovery technology for ultra-low retention and high yield
- ▶ Hinged rack for convenience and ease of use
- ▶ Pre-sterilized; no need to autoclave
- ▶ Certified DNase-/RNase-free and nonpyrogenic
- ▶ Certified human gDNA and PCR inhibition free



## Performance Comparison of Filter Pipette Tips

These images show a visual comparison of the Axygen® GEN3™ filter pipette tip compared to a conventional filter tip following the over-aspiration of a colored liquid.



GEN3 Multi-Barrier Tip



GEN3 multi-barrier pipette tips seal on contact with liquids and prevent liquids or aerosols from passing through, eliminating cross contamination.

Conventional Filter Pipette Tip



Liquid passes through conventional filter pipette tips causing cross contamination.

## Maxymum Recovery® is included as a standard feature on all GEN3 Multi-Barrier Tips

Utilizing a unique manufacturing process, the Axygen Maxymum Recovery range offers an innovative series of pipette tips, filter tips, PCR products and microcentrifuge tubes that feature ultra-smooth surfaces.

- ▶ Ultra-smooth surfaces
- ▶ Exclusive molding technology
- ▶ Reduced sample loss and saves costly reagents
- ▶ Maximizes accuracy and precision



Maxymum Recovery tip after dispensing 100 µL sample



Conventional tip after dispensing 100 µL sample



GEN3 multi-barrier tips are certified human gDNA and PCR inhibition free.

# GEN3™

THE ULTIMATE SELF-SEALING TIP



## Surface Comparison of Polypropylene Materials

These images show a visual comparison of the Axygen® Maxymum Recovery® pipette tip internal surface compared to the surface of both standard polypropylene pipette tips and siliconized pipette tips. The photographs below were taken of the internal surface of sections cut from three styles of pipette tips, via SEM/EDS. Magnification levels ranged from 50x to 5,000x.

### Maxymum Recovery Pipette Tips

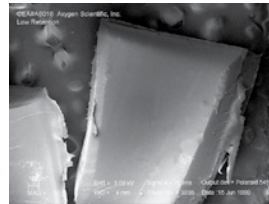


Figure 1a: (50x)

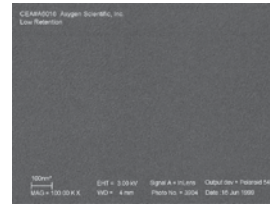


Figure 1b: (500x)



Figure 1c: (5000x)

Figures 1a, 1b, and 1c are images of the Axygen Maxymum Recovery surface. Even at the highest magnification level, the ultra-smooth surface is visibly free of occlusions and cavities which can cause sample retention and sample denaturation in standard polypropylene.

### Conventional Pipette Tips

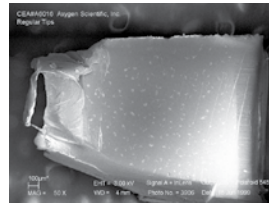


Figure 2a: (50x)

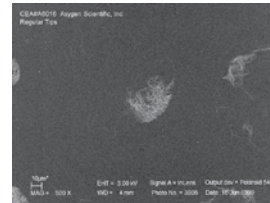


Figure 2b: (500x)

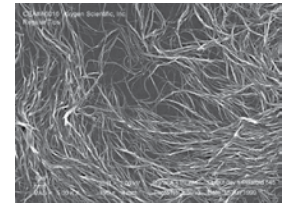


Figure 2c: (5000x)

Figures 2a, 2b, and 2c are images of the internal surface of a standard polypropylene pipette tip. Occlusions and cavities can be seen on the wall surface. At highest magnification, surface strands, which cause samples to 'stick', are clearly visible.

### Siliconized Pipette Tips

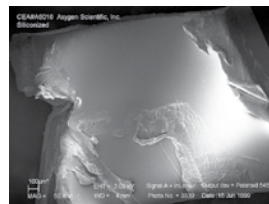


Figure 3a: (50x)



Figure 3b: (500x)

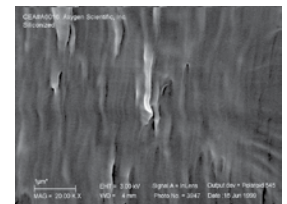


Figure 3c: (5000x)

Figures 3a, 3b, and 3c are images of a siliconized pipette tip. Here again, notice the lack of smoothness of the walls created by an inconsistent and uneven flow of silicone upon the surface. Sample retention occurs even with siliconized pipette tips.

## GEN3 Ordering Information

| Fisher Scientific Cat. No. | Axygen Cat. No. | Description                            | Qty/Rack | Qty/Unit | Qty/Case |
|----------------------------|-----------------|--|----------|----------|----------|
| 14223500                   | GEN3-10-L-R-S   | GEN3 10 µL multi-barrier pipette tip   | 96       | 10       | 5        |
| 14223501                   | GEN3-20-L-R-S   | GEN3 20 µL multi-barrier pipette tip   | 96       | 10       | 5        |
| 14223502                   | GEN3-200-L-R-S  | GEN3 200 µL multi-barrier pipette tip  | 96       | 10       | 5        |
| 14223503                   | GEN3-1000-L-R-S | GEN3 1000 µL multi-barrier pipette tip | 100      | 10       | 5        |

# GEN3™

THE ULTIMATE SELF-SEALING TIP

## Compatibility Guide

|                                    |                      | 10 µL<br>GEN3-10-L-R-S | 20 µL<br>GEN3-20-L-R-S | 200 µL<br>GEN3-200-L-R-S | 1000 µL<br>GEN3-1000-L-R-S |
|------------------------------------|----------------------|------------------------|------------------------|--------------------------|----------------------------|
| Axygen® Axypet® Single Channel     | 0.1–2 µL             |                        |                        |                          |                            |
| Axygen Axypet Single Channel       | 0.5–10 µL            |                        |                        |                          |                            |
| Axygen Axypet Single Channel       | 2–20 µL              |                        |                        |                          |                            |
| Axygen Axypet Single Channel       | 5–50 µL              |                        |                        |                          |                            |
| Axygen Axypet Single Channel       | 10–100 µL            |                        |                        |                          |                            |
| Axygen Axypet Single Channel       | 20–200 µL            |                        |                        |                          |                            |
| Axygen Axypet Single Channel       | 100–1000 µL          |                        |                        |                          |                            |
| Axygen Axypet Multi Channel        | 1–10 µL              |                        |                        |                          |                            |
| Axygen Axypet Multi Channel        | 5–50 µL              |                        |                        |                          |                            |
| Axygen Axypet Multi Channel        | 20–200 µL            |                        |                        |                          |                            |
| Biohit® Proline® Single Channel    | 0.2–10 µL            |                        |                        |                          |                            |
| Biohit Proline Single Channel      | 5–100 µL             |                        |                        |                          |                            |
| Biohit Proline Single Channel      | 10–500 µL            |                        |                        |                          |                            |
| Biohit Proline Single Channel      | 50–1000 µL           |                        |                        |                          |                            |
| Biohit Proline Multi Channel       | 0.2–10 µL            |                        |                        |                          |                            |
| Biohit Proline Multi Channel       | 5–100 µL             |                        |                        |                          |                            |
| Biohit eLINE® Single Channel       | 0.2–10 µL            |                        |                        |                          |                            |
| Biohit eLINE Single Channel        | 5–120 µL             |                        |                        |                          |                            |
| Biohit eLINE Single Channel        | 50–1000 µL           |                        |                        |                          |                            |
| Biohit eLINE Multi Channel         | 0.2–10 µL            |                        |                        |                          |                            |
| Biohit eLINE Multi Channel         | 5–120 µL             |                        |                        |                          |                            |
| Biohit mLINE™ Single Channel       | 0.5–10 µL            |                        |                        |                          |                            |
| Biohit mLINE Single Channel        | 2–20 µL              |                        |                        |                          |                            |
| Biohit mLINE Single Channel        | 10–100 µL            |                        |                        |                          |                            |
| Biohit mLINE Single Channel        | 20–200 µL            |                        |                        |                          |                            |
| Biohit mLINE Single Channel        | 100–1000 µL          |                        |                        |                          |                            |
| Biohit mLINE Multi Channel         | 0.5–10 µL            |                        |                        |                          |                            |
| Biohit mLINE Multi Channel         | 5–100 µL             |                        |                        |                          |                            |
| Eppendorf® Electronic              | 0.5–10 µL            |                        |                        |                          |                            |
| Eppendorf Electronic               | 2–200 µL             |                        |                        |                          |                            |
| Eppendorf Electronic®              | 50–1000 µL           |                        |                        |                          |                            |
| Eppendorf Reference®               | 0.1–10 µL            |                        |                        |                          |                            |
| Eppendorf Reference                | 2–20 µL              |                        |                        |                          |                            |
| Eppendorf Reference                | 20–200 µL            |                        |                        |                          |                            |
| Eppendorf Reference                | 100–1000 µL          |                        |                        |                          |                            |
| Eppendorf Research® Single Channel | 0.5–10 µL            |                        |                        |                          |                            |
| Eppendorf Research Single Channel  | 2–20 µL              |                        |                        |                          |                            |
| Eppendorf Research Single Channel  | 20–200 µL            |                        |                        |                          |                            |
| Eppendorf Research Single Channel  | 100–1000 µL          |                        |                        |                          |                            |
| Eppendorf Research Multi Channel   | 0.5–10 µL            |                        |                        |                          |                            |
| Finnpipette® Single Channel        | 0.2–10 µL            |                        |                        |                          |                            |
| Finnpipette Single Channel         | 0.5–10 µL            |                        |                        |                          |                            |
| Finnpipette Single Channel         | 40–200 µL            |                        |                        |                          |                            |
| Finnpipette Single Channel         | 100–1000 µL          |                        |                        |                          |                            |
| Finnpipette Single Channel         | 200–1000 µL          |                        |                        |                          |                            |
| Gilson® Pipetman® Single Channel   | P2, 0.1–2 µL         |                        |                        |                          |                            |
| Gilson Pipetman Single Channel     | P10, 0.2–10 µL       |                        |                        |                          |                            |
| Gilson Pipetman Single Channel     | P20, 2–20 µL         |                        |                        |                          |                            |
| Gilson Pipetman Single Channel     | P100, 10–100 µL      |                        |                        |                          |                            |
| Gilson Pipetman Single Channel     | P200, 20–200 µL      |                        |                        |                          |                            |
| Gilson Pipetman Single Channel     | P1000, 100–1000 µL   |                        |                        |                          |                            |
| Gilson Multi                       | P200–M8, 20–200 µL   |                        |                        |                          |                            |
| Rainin® EDP3® Single Channel       | E-MIC-10, 0.5–10 µL  |                        |                        |                          |                            |
| Rainin EDP3 Single Channel         | E2-1000, 100–1000 µL |                        |                        |                          |                            |
| Rainin Multi Channel               | EP-M8-10, 0.5–10 µL  |                        |                        |                          |                            |
| Rainin Latch-mode™                 | R2, 0.1–2 µL         |                        |                        |                          |                            |
| Rainin Latch-mode                  | R10, 0.2–10 µL       |                        |                        |                          |                            |
| Rainin Latch-mode                  | R20, 2–20 µL         |                        |                        |                          |                            |
| Rainin Latch-mode                  | R200, 20–200 µL      |                        |                        |                          |                            |
| Rainin Latch-mode                  | R1000, 100–1000 µL   |                        |                        |                          |                            |



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